

## **REMARKS**

The present application relates to Canola Line 45A55. Claims 1-2 and 43-64 are currently pending. Claims 46, 49, 50, 55, and 60 have been amended. No new matter has been added by the present amendment. Applicant respectfully requests consideration of the following remarks.

### **Detailed Action**

#### *Claim Objections*

Applicant acknowledges the objection of claims 43-44, 46-50, 52-53 and 55-61 are withdrawn. Applicant further acknowledges the rejection of claim 61 under 35 U.S.C. §112, second paragraph is withdrawn.

### **Rejections Under 35 U.S.C. § 112, First Paragraph**

Claim 64 stands rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner states "neither the specification nor the originally filed claims appear to provide support for the phrase 'wherein the second canola plant has nuclear male sterility' in line 4".

Applicant respectfully traverses this rejection. The specification does provide support for the phrase noted by the Examiner on page 6, lines 21-line 2 on page 7 and page 7, lines 20-30 which state, respectively:

"In developing improved new Brassica varieties, breeders use self-incompatible (SI), cytoplasmic male sterile (CMS) and nuclear male sterile (NMS) Brassica plants as the female parent. In using these plants, breeders are attempting to improve the efficiency of seed production and the quality of the F<sub>1</sub> hybrids and to reduce the breeding costs. When hybridization is conducted without using SI, CMS or NMS plants, it is more difficult to obtain and isolate the desired traits in the progeny (F<sub>1</sub> generation) because the parents are capable of undergoing both cross-pollination and self-pollination. If one of the parents is a SI, CMS or NMS plant that is incapable of producing pollen, only cross pollination will occur. By eliminating the pollen of one parental variety in a cross, a plant breeder is assured of obtaining hybrid seed of uniform quality, provided that the parents are of uniform quality and the breeder conducts a single cross;

and

"Other sources and refinements of CMS sterility in canola include the Polima cytoplasmic male sterile plant, as well as those of U.S. paten 5,789,566, DNA sequence imparting cytoplasmic male sterility, mitochondrial genome, nuclear genome, mitochondria and plant containing said sequence and process for the preparation of hybrids; U.S. paten 5,973,233 Cytoplasmic male sterility system production canola hybrids; and WO97/02737 Cytoplasmic male sterility system producing canola hybrids, EP patent application 0 599042A Methods for introducing a fertility restorer gene for producing F1 hybrids of Brassica plants thereby; US patent 6,299,072 Cytoplasmic male sterility system production canola hybrids; US patent 4,658,085 Hybridization using cytoplasmic male sterility, cytoplasmic herbicide tolerance, and herbicide tolerance from nuclear genes, and herbicide tolerance from nuclear genes; all of which are incorporated by reference".

Applicant submits the phrase "wherein the second canola plant has nuclear male sterility" is not new matter and is supported by the specification. Further, the Applicant would like to reiterate that a patent application "need not teach, and preferably omits, what is well known in the art." *Hybritech Inc. v. Monoclonal Antibodies Inc.*, 802 F.2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986); MPEP § 601.

In light of the above amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejections to claim 64 under 35 U.S.C. § 112, first paragraph.

#### **Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claims 46, 49-50, 55 and 60 remain rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 46 and 55 are indefinite because the members of the Markush group are not tissue types, but rather are plant parts, and hence do not further define "tissue".

Applicant respectfully traverses this rejection. The claims do recite tissue types as defined in the specification on page 24. Although not acceding to the Examiner's rejection, Applicant has now amended claims 45 and 55 to include the language --plant part--, as suggested by the Examiner, thus alleviating this rejection.

The Examiner rejects claims 49-50 as indefinite in their recitation of "parent is designated 45A55, ...PTA-5684".

Applicant respectfully traverses this rejection. Although not acceding to the Examiner's rejection, Applicant has now amended claims 49 and 50 to include the language --wherein 45A55 is the female parent-- in claim 49 and --wherein 45A55 is the male parent-- in claim 50, as suggested by the Examiner, thereby alleviating this rejection.

Claim 60 lacks antecedent basis for the limitation "said first generation (F1) canola variety 45A55 progeny canola plant" in part (b).

Applicant has now amended the claim to include --45A55--, as suggested by the Examiner, alleviating this rejection.

In light of the above amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejections to claims 46, 49-50, 55 and 60 under 35 U.S.C. §112, second paragraph.

### **Double Patenting**

Claims 1-2 and 43-61 remain rejected and claims 62-64 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,639,131 ('131). The Examiner states in the Office Action mailed March 19, 2004, that although the conflicting claims are not identical, they are not patentably distinct from each other. The Examiner further states that the "canola plants in the instant application, 45A55, and the canola plants of '131, 45A54, have the same traits including flower color (yellow), shedding pollen, plant type (spring), and presence of blackleg and white rust resistance, for example". The Examiner goes on to state "if the claimed plants and seeds of the instant invention are not identical to 45A54, then it appears that 45A54 only differs from the claimed plants and seeds due to minor morphological variation ... that would not confer patentable distinction".

Applicant respectfully traverses this rejection. Claims 1-2 and 43-61 are patentably distinct because they involve a novel canola seed, plants, plant parts, and methods. As exemplified by the PVP Certificates for 45A55 and 45A54 submitted herewith in the Supplemental Information Disclosure Statement, 45A55 and 45A54 differ in parentage. 45A55

is a double cross of ((Polo x Garrison) x (RT-73 x NS2286)). In contrast, 45A54 is a double cross consisting of ((45A58 x Defender) x (RT-73 x NS2286)). Applicant therefore asserts the canola plants are patentably distinct. Applicant therefore asserts that due to their different pedigrees, the phenotypic differences between 45A54 and 45A55 are the result of genetic differences between 45A54 and 45A55 and are not merely minor morphological variation. There are many phenotypic differences between 45A54 and 45A55 as can be seen in the PVP Certificates for 45A54 and 45A55.

45A55 flowers later than 45A54. 45A55 displays one of the latest flowering dates (mean 43.50) as compared to Defender, Excel, Legacy and 45A51. 45A54 displays one of the earliest flowering dates (mean 50.14) as compared to the same reference varieties, Defender, Excel, Legacy and 45A51. Further, 45A55 has shorter leaf width (mean 10.58) when compared to Defender (mean 10.72) whereas 45A54 has a longer leaf width (mean 12.28) when compared to Defender (mean 11.13). Further, 45A55 has a shorter leaf length (mean 21.18) when compared to Defender (mean 24.02). 45A54 has a longer leaf length (mean 27.19) when compared to Defender (mean 24.85). In addition, days to maturity exhibited by 45A55 are 86.8 while in contrast 45A54 exhibits 96.0 days to maturity. These are differences in important traits and not minor morphological variation.

Therefore, Applicant respectfully submits that the inventions of the instant application and U.S. Patent No. 6,639,131 are not identical nor are the differences exhibited by 45A55 and 45A54 minor morphological variations. Applicant submits that the claims are in proper form for allowance and respectfully request reconsideration and withdrawal of the judicially created doctrine of obviousness-type double patenting rejection.

### **Conclusion**

In conclusion, Applicant submits in light of the above amendments and remarks, the claims as amended are in a condition for allowance, and reconsideration is respectfully requested. If it is felt that it would aid in prosecution, the Examiner is invited to contact the undersigned at the number indicated to discuss any outstanding issues.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lila A. T. Akrad". The signature is fluid and cursive, with the first name "Lila" being the most prominent part.

Lila A. T. Akrad, Reg. No. 52,550  
McKEE, VOORHEES & SEASE, P.L.C.  
801 Grand Avenue, Suite 3200  
**Des Moines, Iowa 50309-2721**  
Phone No: (515) 288-3667  
Fax No: (515) 288-1338  
**CUSTOMER NO: 27142**

- pw -

Attorneys of Record